

REMARKS

The Office Action dated October 21, 2004 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1 and 13 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added and no new issues are raised which require further consideration or search. Claims 1-24 are currently pending in the application and are respectfully submitted for consideration.

Claims 1-5, 11-17, and 23-24 were rejected under 35 U.S.C. 102(e) as being anticipated by Bar-Niv (U.S. Patent No. 6,442,142). The rejection is respectfully traversed for the reasons which follow.

Claim 1, upon which claims 2-12 are dependent, recites a method of regulating transceiver power consumption for a transceiver in a communications network. The method includes monitoring data received by the transceiver to detect the presence or absence of a received data signal, and controlling a transceiver state machine to regulate transceiver power consumption in response to the presence or absence of the data received. The transceiver state machine includes at least one of a wake-up control and a power down control.

Claim 13, upon which claims 14-24 are dependent, recites a transceiver power consumption regulator for a transceiver in a communications network. The transceiver power consumption regulator includes a data received monitor located on the transceiver

to detect the presence or absence of a received data signal, and a transceiver state machine coupled between the data received monitor and transceiver components to regulate transceiver power consumption of the transceiver in response to the presence or absence of the data received detected by the data received monitor. The transceiver state machine includes at least one of a wake-up control and a power down control.

The claimed invention provides certain advantages over the prior art. For example, in one embodiment, signal detection may send a received signal to the auto power down system. The auto power down system is coupled via power control lines to every component of the transceiver and may control whether the component is drawing current from the computer power source. The auto power down system sends one or more power control signals to components of the transceiver to control whether the component is drawing current. Every component of the transceiver is responsive to and draws current based on the power control signal. The power control signal is continuously transmitted to the components of the transceiver. The receiving component will either begin drawing current or stop drawing current from the computer power source in response to the power control signal.

As will be discussed below, Bar-Niv fails to disclose or suggest the elements of the claims, and therefore fails to provide the advantages discussed above.

Bar-Niv discloses a base-band receiver energy detection system. The signal energy detection system includes a digital filter which analyzes incoming pulses at a plurality of times to make an initial determination of signal energy on a communication

line. The initial determination is further analyzed in a signal validation machine, which checks a time interval between consecutive signals found in the initial determination, in order to make an accurate final determination of the presence of valid signal energy on the communication line.

Applicants respectfully submit that Bar-Niv fails to disclose or suggest that the transceiver state machine includes at least one of a wake-up control and a power down control, as recited in claims 1 and 13. Bar-Niv discloses an energy-on state machine for making a decision regarding when to power-down the device. The operation of the energy-on state machine depends upon an autonegotiation-mode of operation of the device. If the device is in an autonegotiation-enabled mode, then the energy-on state machine monitors the state of an autonegotiation state machine and operates accordingly. If the device is in an autonegotiation-disabled mode, then the energy-on state machine monitors a link state and operates accordingly (Bar-Niv, Column 2, lines 33-41). However, Bar-Niv does not disclose a transceiver state machine that includes at least one of a wake-up control and a power down control.

The wake-up control, included in the transceiver state machine of the present invention, sends power control signals to a transmitter. The power down control of the present invention sends power control signals to all components of the transceiver, except the transmitter and signal detection. The power control signal being sent is automatically determined in response to the presence or absence of an energy detect signal (Specification, Page 8, lines 17-27). Bar-Niv, on the other hand, makes no mention of a

wake-up control or power down control with the characteristics discussed above. While the Examiner takes the position in the Response to Arguments section that Bar-Niv discloses an energy detection system for determining whether a valid data signal is present on a communications line and comparing a received data signal with a reference signal, Bar-Niv contains no disclosure regarding a transceiver state machine that includes at least one of a wake-up control and a power down control. Therefore, for at least the reasons discussed above, Bar-Niv fails to disclose or suggest all of the elements of claims 1 and 13.

Applicants submit that claims 2-12 are dependent upon claim 1, while claims 14-17 and 23-24 are dependent upon claim 13. Thus, claims 2-12, 14-17, and 23-24 should be found allowable for at least their dependence upon claims 1 and 13, and for the specific limitations recited therein.

Claims 6-10 and 18-22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bar-Niv, in view of Uppunda (U.S. Patent No. 6,678,728). The Office Action took the position that Bar-Niv discloses all the elements of claims 6-10 and 18-22, with the exception of controlling the transceiver to transmit link determination signals to devices on the communications network when the transceiver is in a power-down mode. The Office Action then relies on Uppunda to cure the deficiency in Bar-Niv. The rejection is respectfully traversed for the reasons which follow.

Bar-Niv is discussed above. Uppunda discloses a method and apparatus for automatically loading device status information into a network device. An embodiment

of the invention includes an apparatus in a network device that enters a sleep state under particular conditions. The apparatus includes a buffer for storing data that is to be transmitted and a memory device that stores configuration data. The configuration data is loaded to the apparatus each time the network device is powered up.

As stated above, Bar-Niv fails to anticipate the elements of independent claims 1 and 13. Uppunda, like Bar-Niv, fails to disclose or suggest a transceiver state machine that includes at least one of a wake-up control and a power down control. As such, Uppunda fails to cure the deficiencies in Bar-Niv, and consequently the combination of Bar-Niv and Uppunda fails to disclose or suggest the elements of claims 6-10 and 18-22 which are dependent upon claims 1 and 13, respectively. Therefore, applicants respectfully submit that claims 6-10 and 18-22 should be found allowable for at least their dependence on claims 1 and 13, respectively, and for the specific limitations recited therein.

Applicants respectfully submit that Bar-Niv and Uppunda, whether viewed singly or in combination, fail to disclose or suggest critical and important elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-24 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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